

REMARKS

In response to the Final Office Action mailed April 21, 2008, Applicants respectfully request reconsideration. To further the prosecution of this application, each of the rejections set forth in the Office Action has been carefully considered and is addressed below. The application as now presented is believed to be in condition for allowance.

Initially, Applicant thanks Examiner LeRoux for the courtesies extended during the telephone interview of June 12, 2008 with Applicant's representatives Scott J. Gerwin and Richard F. Giunta. The substance of this interview is summarized herein.

Rejections Under 35 U.S.C. §102

The Office Action rejects claims 29, 30, 32-46, 48-62, and 64-91 under 35 U.S.C. §102(e) as purportedly being unpatentable over Hochberg (Pub. No. 2005/0055518). Applicants respectfully disagree and traverse this rejection.

Independent Claim 29

During the telephone interview, Applicant's representatives asked the Examiner to explain how he was interpreting Hochberg to disclose the limitation of claim 29 that recited (prior to the amendments made herein), "determining whether a previously-defined retention period for the unit of data has expired by performing acts of; (B1) retrieving first information, associated with the unit of data, that identifies a manner of accessing second information specifying the previously-defined retention period, and (B2) using the first information to retrieve the second information specifying the previously-defined retention period."

Applicant's representatives noted that claim 29 also required that the first information is information identifies a retention class to which the unit of data belongs and the second information is a retention period that defines a period of time during which the unit of data cannot be deleted from and/or modified on the at least one storage system, and is associated with the retention class.

The Examiner explained that he was interpreting the event-based retention policy described in ¶0046 of Hochberg to be a retention class, and that Hochberg discloses that an event-based retention policy may have a retention period associated with it.

Applicant's representatives noted that claim 1 requires retrieving information identifying the retention class to which a unit of data belongs to **determine whether a previously-defined retention period for the unit of data has expired**. Applicant's representatives asked the Examiner, if he was considering Hochberg's event-based retention policy to be a retention class, where he believed Hochberg discloses determining whether a previously-defined retention period for the unit of data has expired by retrieving information identifying the event-based retention policy for a unit of data.

Applicant's representatives explained that, even if Hochberg's retention policy is considered to be a retention class, Hochberg does not disclose determining whether a previously-defined retention period for the unit of data has expired by retrieving information identifying the event-based retention policy for a unit of data. Applicant's representatives noted that Figure 5 of Hochberg shows the process for processing of event signal for an object that has an associated event-based retention policy. As shown in Figure 5, when an event signal for an object that has an event-based retention policy is received, an expiration entry for an object is created in the expiration table (steps 128 and 130 of Figure 5). Applicant's representatives explained that, as shown in Figure 3, an expiration entry for an object specifies the object ID for the object, the retention period start date, and the retention period. The expiration entry for the object is used to determine whether the retention period for the object has expired.

Applicant's representatives then pointed the Examiner to Figure 8 and the accompanying description in ¶0046, which indicate how the system of Hochberg determines whether a retention-period for an object has expired in response to a delete request to delete the object. Hochberg discloses that, when a request to delete an object is received, the object is deleted only if the retention period for the object ID has expired. Thus, when a delete request to delete an object is received, the system accesses the expiration entry for the object in the expiration table and determines whether the current time minus the retention period start exceeds the retention period for the object (steps 244 and 246 of Figure 8).

In response, the Examiner questioned whether claim 29 required retrieving information that identifies the retention class to which a unit of data belongs, as claim 29 recited retrieving “first information,” associated with the unit of data, that identifies a manner of accessing second information specifying the previously-defined retention period, and not retrieving information identifying a retention class. Applicant’s representatives pointed out that, in part (C), claim 29 recited that “the first information is information identifying a retention class to which the unit of data belongs.” The Examiner asked whether this could be made more explicit in the claim.

Applicant’s representatives indicated that they would attempt to make this even more explicit, and the Examiner indicated that, upon receiving Applicant’s response, he would again review Hochberg to determine whether Hochberg discloses determining whether a previously-defined retention period for the unit of data has expired by retrieving information identifying the event-based retention policy for a unit of data.

Applicant has amended claim 29 in an attempt to make the above-discussed limitation even more explicit. Claim 29 now recites, *inter alia*, “(B) in response to the request, determining whether a previously-defined retention period for the unit of data has expired by performing acts of; (B1) retrieving first information, associated with the unit of data, that identifies a manner of accessing second information specifying the previously-defined retention period, wherein the first information is information identifying a retention class to which the unit of data belongs, wherein the second information is the previously-defined retention period for the retention class that defines a period of time during which units of data belonging to the retention class cannot be deleted from and/or modified on the at least one storage system, and wherein the at least one storage system stores a record associating the retention period with the retention class.”

As should be clear from the discussion above, Hochberg does not disclose or suggest that in response to a request to delete a unit of data, determining whether a previously-defined retention period for the unit of data has expired by retrieving first information that identifies a retention class to which the unit of data belongs. Rather, in Hochberg, when a request to delete an object is received, the system determines whether a previously-defined retention period for the object has expired by accessing an entry in the expiration table that specifies the retention period for the object.

Thus, claim 29 patentably distinguishes over Hochberg, and it is respectfully requested that the rejection of claim 29 be withdrawn. Claims 30 and 32-44 depend from claim 29 and are patentable for at least the same reasons. Accordingly, it is respectfully requested that the rejection of these claims be withdrawn.

Independent Claims 45 and 61

Claim 45 recites, *inter alia*, "in response to the request, determining whether a previously-defined retention period for the unit of data has expired by performing acts of; (B1) retrieving first information, associated with the unit of data, that identifies a manner of accessing second information specifying the previously-defined retention period, wherein the first information is information identifying a retention class to which the unit of data belongs, wherein the second information is the previously-defined retention period for the retention class that defines a period of time during which unit of data belong to the retention class cannot be deleted from and/or modified on the at least one storage system, and wherein the at least one storage system stores a record associating the retention period with the retention class," and Claim 61 recites a controller to, "in response to the request, determine whether a retention period for the unit of data has expired by performing acts of: retrieving first information, associated with the unit of data, that identifies a manner of accessing second information specifying the previously-defined retention period...wherein the first information is information identifying a retention class to which the unit of data belongs, wherein the second information is the previously-defined retention period for the retention class that defines a period of time during which units of data belonging to the retention class cannot be deleted from and/or modified on the at least one storage system, and wherein the at least on storage system stores a record associating the retention period with the retention class."

As should be clear from the discussion above, each of these claims patentably distinguishes over Hochberg, such that the rejections of these claims should be withdrawn.

Claims 46 and 48-60 depend from claim 45 and claims 62 and 64-73 depend from claim 61. Each of these dependent claims is patentable for at least the same reasons as the independent claim from which it depends. Accordingly, it is respectfully requested that the rejection of each of these claims be withdrawn.

Independent Claims 74 and 80

Independent claims 74 and 80 each recite an act of “transmitting a request from the at least one host to the at least one storage system to modify the retention period specified by the retention class, thereby modifying a period of time during which the plurality of data units belonging to the retention class cannot be deleted from and/or modified on the at least one storage system.”

Hochberg fails to disclose or suggest this limitation of claims 74 and 80. In the system of Hochberg, a retention period for an object is not modified by modifying the retention period of a retention class to which the object belongs, but rather by modifying information specified in the object entry for that particular object. Figure 7 of Hochberg shows a process by which the retention period for an object may be modified by modifying the archive policy specified in the object entry for the object. A request to modify the archive policy is limited to the policy for a single object specified in the request (§0045, lines 4-5; Fig. 7, block 200). When it is determined that the modification is permitted, the modification is performed by updating the retention period specified in the archive policy 36 field of the object entry 30 (§0045, lines 19-25). Thus, the archive policy for an object is modified by modifying the object's entry in the object table. The system of Hochberg does not modify the archive policies for multiple objects at once by modifying information that specifies the retention period for multiple objects belonging to a retention class. Rather, in the system of Hochberg, the archive policy for each object is modified on an individual basis, by updating the object entry associated with that object.

That is, in the system of Hochberg, to modify the retention period of multiple objects, the object entry for each object must be modified. Hochberg does not disclose modifying the retention period for multiple previously stored objects by modifying the retention period for a retention class to which the objects belong.

Thus, claims 74 and 80 patentably distinguish over Hochberg such that the rejection should be withdrawn.

Claims 75-79 depend from claim 74 and claims 81-86 depend from claim 80 and are patentable for at least the same reasons as the independent claim from which they depend.

Independent Claim 86

Independent claim 86 recites a controller to “transmit a request to the at least one storage system to modify the retention period specified by the retention class, thereby modifying a period of time during which the plurality of data units belonging to the retention class cannot be deleted from and/or modified on the at least one storage system.”

As should be clear from the discussion above, Hochberg does not disclose or suggest this limitation of claim 86. Thus, claim 86 patentably distinguishes over Hochberg such that the rejection of this claim should be withdrawn.

Claims 87-91 depend from claim 86 and are patentable for at least the same reasons.


CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: July 21, 2008

Respectfully submitted,

By 

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